What is claimed is:

1. In a communication network including an access point and a plurality of stations, a method of accessing said communication network, said access point and said plurality of stations operating under a distributed coordination function (DCF) access mechanism as a default access mechanism, comprising steps of:

a) automatically monitoring load conditions over said communication network;

b) automatically analyzing said load conditions to determine which access mechanism, said DCF access mechanism or a point coordination function (PCF) access mechanism, is most appropriate for said load conditions;

c) dynamically enabling said PCF access mechanism when said PCF access mechanism is most appropriate for said load conditions; and

d) dynamically disabling said PCF access mechanism when said DCF access mechanism is most appropriate for said load conditions.

2. The method as described in Claim 1, wherein said monitoring and said analyzing in said steps a) and b) respectively are implemented continually.

3. The method as described in Claim 1, wherein said monitoring in said step a) and said analyzing in said step b) are implemented periodically.

4. The method as described in Claim 1, wherein said monitoring and analyzing in steps a) and b) respectively are implemented asynchronously.

5. The method as described in Claim 1, wherein a point coordinator implements said steps a), b), c), and d), said point coordinator located at said access point.

6. The method as described in Claim 5, wherein said access point, said plurality of stations, and said point coordinator are substantially compliant with a version of the IEEE 802.11 communications protocol.

7. The method as described in Claim 1, comprising further steps of:

e) automatically polling a first station from said plurality of stations to control transmissions from said first station to said access point and to at least one of said plurality of stations;

f) automatically polling a second station from said plurality of stations to control transmissions from said second station to said access point and to at least one of said

plurality of said stations, independent of and conducted at a different time than step e); and

g) automatically cancelling all polling of said first and second stations to increase traffic coming from said access point and going to at least one of said plurality of stations.

8. The method as described in Claim 1, wherein said step b) comprises the further step of

assigning a high value in said point coordinator when said PCF access mechanism is most optimum for said load conditions;

assigning a low value in said point coordinator when said DCF access mechanism is most optimum for said load conditions;

9. The method as described in Claim 8, wherein said step c) is implemented when said high value is assigned, and wherein said step d) is implemented when said low value is assigned.

10. The method as described in Claim 1, wherein said step b) considers such factors selected from the group consisting essentially of:

the rate at which collisions are occurring;

the number of collisions;

the overall traffic rate;

the number of data frames to be delivered from said AP to at least one of said plurality of stations, said data frames located at said AP;

the total number of said plurality of stations; and

the destination of said data frames located at said AP.

11. In a communication network including an access point and a plurality of stations, a method of accessing said communication network at a point coordinator located at said access point, said access point and said plurality of stations operating under a distributed coordination function (DCF) access mechanism as a default access mechanism, comprising steps of:

a) automatically monitoring load conditions over said communication network;

b) automatically analyzing a factor of a rate at which collisions are occurring over said communication network as a measure of said load conditions on a continual basis to determine which access mechanism, said DCF access mechanism or a point coordination function (PCF) access mechanism, is most appropriate for said load conditions;

c) dynamically enabling said PCF access mechanism when said PCF access mechanism is most appropriate for said load conditions; and

d) dynamically disabling said PCF access mechanism when said DCF access mechanism is most appropriate for said load conditions.

12. The method as described in Claim 11, wherein said monitoring and said analyzing in said steps a) and b) respectively are implemented continually.

13. The method as described in Claim 11, wherein said monitoring in said step a) and said analyzing in said step b) are implemented periodically.

14. The method as described in Claim 11, wherein said monitoring and analyzing in steps a) and b) respectively are implemented asynchronously.

15. The method as described in Claim 11, wherein said collisions include physical carrier sense collisions and virtual carrier sense collisions.

16. The method as described in Claim 15, wherein said access point, said plurality of stations, and said point coordinator are substantially compliant with a version of the IEEE 802.11 communications protocol.

17. The method as described in Claim 11, comprising further steps of:

e) automatically polling a first station from said plurality of stations to control transmissions from said first

station to said access point and to at least one of said plurality of stations;

f) automatically polling a second station from said plurality of stations to control transmissions from said second station to said access point and to at least one of said plurality of said stations, independent of and conducted at a different time than step e); and

g) automatically cancelling all polling of said first and second stations to increase traffic coming from said access point and going to at least one of said plurality of stations.

18. The method as described in Claim 11, wherein said step b) comprises the further step of

assigning a high value in said point coordinator when said PCF access mechanism is most optimum for said load conditions;

assigning a low value in said point coordinator when said DCF access mechanism is most optimum for said load conditions;

19. The method as described in Claim 18, wherein said step c) is implemented when said high value is assigned, and wherein said step d) is implemented when said low value is assigned.

20. The method as described in Claim 11, wherein said step b) considers additional factors selected from the group consisting essentially of:

the number of collisions;

the overall traffic rate;

the number of data frames to be delivered from said AP to at least one of said plurality of stations, said data frames located at said AP;

the total number of said plurality of stations; and

the destination of said data frames located at said AP.

21. A computer system comprising a processor, a memory unit, and a display screen wherein said memory contains instructions that when executed implement a method of accessing said communication network, said access point and said plurality of stations operating under a distributed coordination function (DCF) access mechanism as a default access mechanism, comprising steps of:

a) automatically monitoring load conditions over said communication network;

b) automatically analyzing said load conditions to determine which access mechanism, said DCF access mechanism or a point coordination function (PCF) access mechanism, is most appropriate for said load conditions;

c) dynamically enabling said PCF access mechanism when said PCF access mechanism is most appropriate for said load conditions; and

d) dynamically disabling said PCF access mechanism when said DCF access mechanism is most appropriate for said load conditions.

22. A computer system as described in Claim 21, wherein said monitoring and said analyzing in said steps a) and b) respectively are implemented continually.

23. A computer system as described in Claim 21, wherein said monitoring in said step a) and said analyzing in said step b) are implemented periodically.

24. A computer system as described in Claim 21, wherein said monitoring and analyzing in steps a) and b) respectively are implemented asynchronously.

25. A computer system as described in Claim 21, wherein a point coordinator implements said steps a), b), c), and d), said point coordinator located at said access point.

26. A computer system as described in Claim 25, wherein said access point, said plurality of stations, and said point coordinator are substantially compliant with a version of the IEEE 802.11 communications protocol.

27. A computer system as described in Claim 21, comprising further steps of:

e) automatically polling a first station from said plurality of stations to control transmissions from said first

station to said access point and to at least one of said plurality of stations;

f) automatically polling a second station from said plurality of stations to control transmissions from said second station to said access point and to at least one of said plurality of said stations, independent of and conducted at a different time than step e); and

g) automatically cancelling all polling of said first and second stations to increase traffic coming from said access point and going to at least one of said plurality of stations.

28. A computer system as described in Claim 21, wherein said step b) comprises the further step of

assigning a high value in said point coordinator when said PCF access mechanism is most optimum for said load conditions;

assigning a low value in said point coordinator when said DCF access mechanism is most optimum for said load conditions;

29. A computer system as described in Claim 28, wherein said step c) is implemented when said high value is assigned, and wherein said step d) is implemented when said low value is assigned.

30. A computer system as described in Claim 21, wherein said step b) considers such factors selected from the group consisting essentially of:

the rate at which collisions are occurring;

the number of collisions;

the overall traffic rate;

the number of data frames to be delivered from said AP to at least one of said plurality of stations, said data frames located at said AP;

the total number of said plurality of stations; and

the destination of said data frames located at said AP.